COLLECTION OF SCHOOL LEVEL DATA IN OREGON: AN ANALYSIS OF THE DATABASE INITIATIVE PROJECT

Technical Paper

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INTRODUCTION

State education policy makers are becoming increasingly interested in the collection and use of school level data as they seek to find ways to hold schools accountable for student performance and the use of fiscal resources (for example, see Picus, 1998). At the present time a number of states either have existing school level data collection programs in place, are in the process of developing such systems, or are actively considering the establishment of systems that will provide the state with fiscal and staffing data at the school site level (NCSL, 1999).

One state that is currently in the process of developing school level fiscal, staffing and student performance data is Oregon. In this program, known as the Oregon Database Initiative (DBI), the state has spent the last two years developing a new chart of accounts for Oregon school districts and beginning the design of the elements of a system that will combine information about school input variables (i.e. money, staff resources, etc.) with school outputs (i.e. student test scores, attendance data and information on dropouts). Development of an accounting code structure was the first priority, and at the present time, the state, along with its contractor, KMPG, are preparing for implementation of the new chart of accounts in all 198 districts across the state in the 1999-2000 fiscal year.

In addition to providing the state with revenue and expenditure data at the school site, when completed, the Oregon DBI is expected to provide a relational database containing fiscal, staffing, student and performance indicators that can be used to better understand how the state's schools are performing. At the present time, a new account code structure has been developed and sixteen pilot districts have provided the state with fiscal data using the new codes for the 1997-98 fiscal year. The sixteen districts are using the new account codes again this year (1998-99), and it is expected that all 198 districts in the state will be required to use the new accounting manual beginning in 1999-2000. Other parts of the system are in varying states of development. Some of the data needed is already collected by the state and needs to be made available to the DBI. For some of the indicators that have been identified, data elements need to be developed. Much of this work on these elements of the system will be done during the 1999-2001 biennium.[1]

Parallel to this data collection effort, the state has an extensive school improvement effort underway. During the 1990s, Oregon voters substantially reduced local school district property taxation authority. As a result, the state is now the primary source of funds for schools. This has led to considerable debate over how much money should be appropriated to the schools each year. In an attempt to define the resources needed to fund an adequate education, a new Oregon Quality Education Model is being developed. While the model is still in draft form, data from the DBI, as well as other Oregon Department of Education sources has been used to help estimate the costs of this model over time. It is anticipated that the DBI will be a critical element in helping to determine what the future costs of achieving Oregon's high expectations for student performance will be.

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[1] The State of Oregon uses a biennial budget. As a result, many of the time periods discussed in this document refer to two-year periods related to the state government's fiscal time frame.

This working paper was prepared for the Joint Legislative Audit and Review Committee to provide information on the status of Oregon's DBI efforts. It is part of a larger effort of the Committee to understand the myriad of issues surrounding the design and use of school level data collection. Following this introduction, the first section of this paper describes the background of the DBI project, providing a historical context for the project, information on the goals and objectives of the DBI, and describing the scope of the project as it is currently envisioned. The second section of the paper provides a detailed description of the DBI, describing the data that is, or will be, collected and how state officials envision using the information available through the DBI. The third section considers issues of implementation, describing the process that has been used to develop the indicators and the new accounting manual. This section also includes information on costs and anticipated costs of development and operation. Parallel to the development of the DBI, officials in Oregon are developing the Oregon Quality Education Model (OQEM). Much of the development of the OQEM has relied on the DBI and the information it is anticipated will be available through the DBI. Finally, the fourth section of this paper offers some conclusions about the process Oregon has been through to date and some lessons that might be helpful to Washington policy makers as they consider the further development of their own educational information systems.

BACKGROUND

The Oregon DBI, as well as the Quality Education Model (EQEM) represent major commitments to the development and use of extensive new sets of data on the performance of Oregon's schools. To understand why the state has made this commitment, it is helpful to understand the educational environment in Oregon and the major actions that led to the development of the DBI and the OQEM. This section provides a brief background on those events, drawing primarily from interviews with Oregon officials and from a draft of the Legislative Council on the Oregon Quality Education Model's report, *The Oregon Quality Education Model* (Legislative Council on the Oregon Quality Education Model, 1999).

Prior to the 1990s, local school boards and voters determined the size of school district budgets. Many school districts relied on district voters to approve operating levies each year to ensure adequate resources for their schools. The state's role in funding schools was limited to approximately 30 percent of operating funds. As a result, there were substantial disparities in per pupil spending among the districts in the state.[2] Four pieces of legislation during the 1990s changed the locus of control for school district finances. They were:

- Ballot Measure 5
- The Oregon Education Act for the 21st Century (HB 3565 and HB 2991)
- School Finance Equalization
- The Database Initiative Project

Each is discussed in more depth below.

Ballot Measure 5

In 1990, Oregon voters, concerned with what they felt were high property taxes for education, passed Ballot Measure 5. This initiative placed limits on the tax rate that school

[2] Disparities in per pupil spending are common in systems that rely substantially on local resources to fund schools. Districts with higher wealth per pupil are able to provide more money for schools, often with lower tax rates. For a discussion of these issues, see Odden and Picus, 1992.

districts could levy on local property for school operations. Districts were required to reduce their tax rates to no more than $15 dollars per thousand dollars of assessed value over a period of five years. Capital and bonded debt levies were excluded from this limit. Ballot Measure 5 required the State to replace local property tax loses. One consequence of this property tax limitation and expansion of state funding was to effectively shift control of school district funding decisions to the State Legislature.

The voters passed two additional tax initiatives – Measure 47 in 1996 and Measure 50 in 1997. Both placed further restrictions on local school district property tax collections and increased the state's responsibility for funding schools.

As a result of these three voter approved initiatives, the state today funds approximately 70 percent of the costs of K-12 education. School funding is determined by the Legislature and approved as part of the biennial budget process. School funding represents approximately half of the state's entire general fund budget.

The Oregon Education Act for the 21st Century (HB 3565 and HB 2991)

In 1991, Oregon became something of a pioneer in the development of standards for what students should know and be able to do. The Oregon Education Act for the 21st Century authorized the state to develop standards for student knowledge and skills. Rigorous academic content standards in math, science, history, geography, economics, civics and English were established by the state. Beginning in 1998-99, students had to meet these standards to earn a Certificate of Initial Mastery (CIM) in the 10th grade. The act indicated that by 2004-05, 12th graders would have to earn a Certificate of Advanced Mastery (CAM) to graduate. Benchmarks for state testing in English, math, science and social studies were established for the 3rd, 5th, 8th and 10th grades.

The goal of this legislation was to have "the best educated citizens in the nation by the year 2000 and a work force equal to any in the world by the year 2010" (Legislative Council on the Oregon Quality Education Model, 1999). Implementation of these standards has been difficult for Oregon school districts as funding from the Legislature has been relatively limited, slowing growth of revenues in most districts and actually resulting in budget cuts in some. In 1999, it was estimated that most districts have 40-50 percent of their students performing at the standards level.

School Finance Equalization

Along with its new responsibility for funding education and the new standards that were being established, the Legislature also took responsibility for equalizing funding among the state's school districts in 1991. Legislation was passed during the 1991 session of the Legislature that gradually phased in more equalized revenues for school districts. Although there were a number of proposals for flat funding and stop-loss formulas, most district officials in Oregon agree that the state essentially "leveled down" pupil spending across the state. As a result, spending did not increase dramatically in low spending districts, and high spending districts were forced to reduce planned or actual expenditures substantially. The Legislative Council on the Oregon Quality Education Model (1999) estimates that by 1999 spending had been equalized in approximately 92 percent of the state's 198 school districts.

The Database Initiative Project

Described in detail below, the Oregon Database Initiative Project (DBI) was established by the Legislature in 1997 to provide a centralized database of information from each of the 198 districts in the state. The DBI is the focus of this working paper and the next section of the paper is devoted to a detailed description of the design of the DBI and its anticipated uses once it has been fully implemented. At the present time, all districts are expected to begin coding and reporting fiscal data at the school level through the DBI beginning in December 1999. By January 2001, the state will be able to compare spending among districts and school sites across the entire state using uniform definitions of expenditure categories.

The Current Policy Context

Like all states, the relationship between the state government and local school districts is complex and often contentious. During the last ten years, control over funding for Oregon's schools has shifted to the state. At the same time, the state has implemented high new standards for student performance. Because funding growth has not kept pace with inflation,[3] districts have felt pinched between the restrictions on funding and the demands to meet higher performance standards. Like many other states, the Legislature wants to know what it costs to provide a quality education to Oregon school children, and like many other states, a satisfactory answer is hard to find. It is anticipated that the DBI, in conjunction with the OQEM will, when fully implemented, provide policy makers and State Legislators with enough information to adequately fund Oregon's public K-12 schools.

The Oregon Quality Education Model

Although the focus of this working paper is the DBI, it is anticipated that the data provided through the DBI will be an integral part of the OQEM and will be used to determine what a quality education should cost. Therefore, this sub-section considers briefly the components of that model and its implications for Oregon education.

The OQEM uses the concept of prototype schools to identify the resources needed to provide Oregon school children with a quality education. The prototype schools were developed and designed using research on current educational practices to build a model that would be expected to enable schools to get at least 90 percent of their students to a point where they could meet the Oregon student performance standards. Workgroups were established to made recommendations regarding class size, operational support, professional development and the duration of instructional time. In addition to the regular program, a number of other issues are still being considered. These include special education, education service districts, collective bargaining, regional cost differentials and the full implementation of the model.

The OQEM uses the school as the unit of analysis. The prototype schools indicate the level of resources needed for a "typical" Oregon school at the elementary, middle and high school levels. To identify a typical school, a number of assumptions were made about the characteristics of the students, staff and community. From those assumptions, a "model" school was designed. This model identifies the number of teachers, additional professional and support

[3] The Legislative Council on The Oregon Quality Education Model (1999) estimates that funding increases have only been about 60 percent of the rate of inflation, resulting in a real decline in available resources to school districts in the 1990s.

staff, and facility needs necessary to establish that prototype school. For schools whose student, staff or community characteristics differ substantially from the stated assumptions, modifications to the prototype would be possible. For example, if a community had a large number of low income families and children or a high percentage of limited English proficient children, additional teachers or other resources could be included in the base prototype model.

Estimating the cost of these prototype schools was done using the data collected from the sixteen pilot districts in the DBI, as well as data from the Oregon Department of Education and other organizations such as the Confederation of Oregon School Administrators and the Oregon Teachers Association. It is expected that once the final prototype models have been determined and the DBI is fully operational, it will be possible to estimate the costs of a quality education with some precision. Moreover, as a school's characteristics require some deviations from the prototype models, the data from the DBI can be used to estimate the costs of those variations on a school by school basis. Appendix A of this paper provides a description of what the prototype schools designed to meet the Oregon standards would look like.

THE OREGON DATABASE INITIATIVE

Goals and Objectives

In 1997, the Oregon Legislature passed HB 3636 which directed the Oregon Department of Education to update the K-12 school budget and accounting system and produce comparable spending information for schools and districts. The bill requires that the data collected be put in a database that is accessible to the public. The Department of Education established eight objectives for the project (Oregon Department of Education, 1999):

- Review, modify, update, improve existing chart of accounts
- Relate expenditures to academic content standards
- Standardize and prescribe common definitions for expenditures
- Collect data at district and school level
- Provide for electronic data transmission and reporting
- Use data already reported to the Department
- Create a set of standard reports or views
- Identify chief factors influencing student performance

According to Department officials and the staff of the DBI, the project has been a collaborative effort of the department staff and KPMG, LLP who worked together to design the new accounting manual and the reporting methods for school districts. In addition, all parties give credit to the sixteen pilot districts that worked with the Department and KPMG to design and implement the new accounting codes. The result of the DBI to date is a new school accounting manual that provides revenue and expenditure codes for Oregon schools and school districts, and establishes electronic reporting mechanisms for school districts to report to the state. The following sections provide details about the development and operation of the DBI.

Scope of the Project

The goal of the state Legislature as indicated by the eight objectives was to create a usable and accessible database of information about schools and school districts. This database would be used by policy makers, school officials and the public to compare spending patterns and student performance across school districts. An important component in development of the

DBI was development of the indicators that should be included in the database. An extensive list of potential indicators was developed through a series of focus groups that included representatives of the Department of Education, school districts and the public. The indicators generated from this process are included in Appendix C. This list is comprehensive but not necessarily reflective of the final design of the DBI. The DBI web site, from which these indicators were taken, indicates that the list should be considered tentative pending further discussions of their value and the capability of the state to collect data that address each of them.

The list of indicators in Appendix C is comprehensive. Some of them are relatively straightforward to calculate, while reporting others would require extensive and expensive data collection efforts. As the DBI's website indicates, "Until such time as this analysis is complete, this document should be regarded as preliminary in nature" (see http://dbi.ode.state.or.us/).

What this list of indicators does show is the comprehensive lens through which the state of Oregon views the DBI project. Not only does the state want to collect data on revenues and expenditures of school districts, it is also interested in data on the resources available to children in a school. This includes information on the number and qualifications of teachers and other staff, the types of special programs available at the school, the educational processes being implemented in the school, class size by subject area where appropriate, and the number of hours students spend in different subject areas. Student performance data as well as demographic information on the students and their families are also included. Finally, the DBI includes data on the infrastructure of the school district indicating the condition of individual buildings, the types of facilities (including computers and Internet connections) available at each site, and how the district has fared in bond levy elections.

The best way to understand the types of reports available is to actually create reports from the data available at the DBI website. Among the reports that can be generated are those shown in table 1. Each of these reports can be created for individual districts or schools by going to the DBI home page (http://dbi.ode.state.or.us/) and selecting the reports button at the top of the screen.

Table 1: Reports Available From DBI Data

Report	Contents
District Profile Report	Student characteristics Staff characteristics Community characteristics General fund spending per pupil Number of instructional days Infrastructure • Building age • Computers and Internet connections Student performance
School Profile Report	Grade range Student characteristics General Fund spending per pupil Types of classes offered and average size Staff characteristics Socio-economic status Student performance
Licensed Staff Report (district level)	Teacher characteristics by school • Percent with Masters degree • Average years of experience • Average salary Number of Librarians Number of counselors Number of PE specialists Number of music specialists
Average Class Size by Secondary School	Total Enrollment in school Average class size by school for: • Math • Science • English • Social Studies • Second Language
Average Class Size by Elementary School	Total enrollment in school Average class size by school • Average class size by grade level • Number of classes by grade level

The Accounting Manual

One of the most important components of the DBI is the new school district accounting manual. The manual, which can be downloaded from the DBI web site, provides information on the new chart of accounts and how to code revenues and expenditures in the new structure. The manual itself is quite traditional, providing information on the account code structure for revenues and expenditures and then offering definitions of each to aid in the coding of revenues and expenditures. It does not appear that expenditures can be tracked by revenue source through this system.

The rule for coding expenditure data are based on the Federal Government's Handbook II coding structure and were established to maximize the use of current district accounting structures. The system relies on fund accounting and establishes nine types of funds as follows:

- Government Funds
  100 General fund
  200 Special Revenue Funds
  300 Debt Service Funds
  400 Capital Project Funds

- Proprietary Funds
  500 Enterprise Funds
  600 Internal Service Funds

- Fiduciary Funds
  700 Trust and Agency Funds

- Account Groups
  800 General Fixed Assets
  900 General Long Term Debt

Revenues are classified by fund in five major source codes as follows:

1000 Local Sources
2000 Intermediate Sources
3000 State Sources
4000 Federal Sources
5000 Other Sources

Districts are allowed to use additional account code dimensions to provide further classification of revenue to track receipts for particular programs, projects or schools.

Expenditures are coded to the following dimensions within funds:

- Function
- Object
- Operational unit
- Area of Responsibility
- Sub-Area

All of the various codes, along with information on the minimum chart of accounts required for reporting purposes, are included in the Manual. The level of detail for the minimum chart of accounts varies depending on the fund and code, but Fund, Function, Object and Operational unit are required for all expenditure accounts. This requirement is in place so that data can be aggregated by program as well as object and function.

The revised *Program Budgeting and Accounting Manual for School Districts*, which includes the school finance chart of accounts was adopted by the State Board of Education for the 1999-2000 fiscal year. It is available on the Internet at the DBI web site. The entire manual is available at the DBI home page at http://dbi.ode.state.or.us/. (To download and print the manual, click on the "Accounting Manual" button at the top of the page.)

IMPLEMENTATION OF THE DBI

Why the DBI?

Before describing the implementation of the DBI to date and the plans for its future implementation, it is helpful to understand why policy makers and other school officials wanted to initiate something this extensive and complex. At the present time, managing and collecting comparable education data in Oregon is difficult. Districts do not always use the same chart of accounts. This means that similar expenditures are frequently reported in different locations in various districts. Moreover, there has been little automation of data reporting functions. As a result, each of the 198 districts is required to submit over 100 different reports to the state. The state then inputs the data (if it is to made available electronically) and attempts to resolve inaccuracies, inconsistencies, and errors in the data it receives from the districts.

The DBI was designed to provide consistent statewide data on revenues and expenditures for all schools and school districts. Moreover, to relieve the Oregon Department of the tremendous data input task that has burdened it in the past, the DBI uses the Internet to collect and report these data.

Timeline for Implementation

It is the intent of the Department of Education (as well as the Legislature) that each district in the state report both school and district level accounting information through the new account codes beginning with the 1999-2000 school year. It is the goal of the state to have 1999-2000 fiscal data for all schools and districts available through the DBI by January 2000.

Following passage of HB 3636 in 1997, the project began with sixteen pilot districts. According to DBI project staff, the state identified 25 potential pilot districts and invited them to participate in initial meetings regarding the project. From the 25, fifteen districts and one Education Service District (ESD) agreed to serve as pilot districts. These sixteen pilot districts represent the diversity of school districts in Oregon, ranging from Portland, the state's largest district, to very small rural districts in Eastern and Southern Oregon. These sixteen districts represent approximately 30 percent of the students in the state of Oregon. Appendix B lists the sixteen districts that participated in the pilot project.

Pilot Project Components

The pilot project had three major components.[4] They are:

- Uniform chart of accounts
- Data loading
- Database development and Internet Reporting

Uniform Chart of Accounts An important component of the project was to develop a uniform chart of accounts that could be used by all districts. To do this, the Department of Education and its consultant, KPMG, worked closely with the sixteen pilot districts to design a chart of accounts that met their needs as well as those of the state. Project staff indicated that the intent was to develop a chart of accounts that was as similar as possible to the chart of accounts currently in use in Oregon districts, thus minimizing the learning curve in transitioning to the new chart of accounts. In addition, the new system needed to be comprehensive enough to include the wide range of expenditures that school districts undertake. Officials also wanted data that could be aggregated to different levels and reported to state and local policy makers in a comprehensive and understandable way. Finally, the project staff wanted to be sure that the new chart of accounts conformed to the Federal guidelines in Handbook II.

These were difficult and often conflicting goals. To meet them, the DBI staff held workshops with the pilot district staff seeking their input, as well as input from other districts and from education support organizations, and from the Oregon Department of Education. The credibility of the DBI project staff was enhanced by the fact that the project director was the chief business officer from the Eugene school district. She is widely respected by business officers across the state, and as a business officer for the state's fourth largest school district, she understands both the needs of district business offices and the extent of the difficulties implementation of the DBI will impose on local districts.

Data Loading One of the most severe weaknesses of Oregon's previous data collection system is the manual labor required to submit the reports and then re-enter the data at the Oregon Department of Education. All parties agreed that finding ways to submit data electronically was important to the success of the DBI. The department has developed a web-based data loading system that allows districts to send their data to the state via the Internet. This has proven to be successful for the pilot districts, and the state is optimistic that this data loading feature of the DBI will be a popular and labor saving feature that will encourage all districts to participate in the DBI more willingly.

Both officials of KPMG and the Department agreed that data loading via the web would result in considerable labor savings at the Oregon Department of Education and would enable the Department staff to do more analysis and less data entry. Department officials stressed the advantage of being able to respond to requests for information from the Legislature and public more quickly and with greater accuracy as another benefit of the DBI.

Database Development and Internet Reporting As data were submitted to the state from the sixteen pilot districts, a database was developed on the world wide web. This database can

[4] The Oregon Department of Education's Summary Report on the DBI (Oregon Department of Education, 1999) actually lists four major components of the project. However, for the purpose of this discussion, the database development and Internet reporting components have been combined to aid the reader in developing an understanding of the different components of the DBI and their development and use.

be accessed at http://dbi.ode.state.or.us/ and generates a number of different reports for use by school districts, policy makers and the public. Examples of the types of reports that can be generated through this tool are described in table 1 above.

According to documents prepared by the DBI project and the interviews conducted with DBI staff and consultants, the process used to develop the components of the DBI was very inclusive. The DBI staff worked with officials of the sixteen pilot districts, as well as other educators and the public throughout the state to develop both the list of indicators and the chart of accounts. More recently, the Department has held workshops across Oregon to assist school districts with the implementation of the budgeting and accounting changes for 1999-2000 as they prepare their budgets for that fiscal year. According to the project director, the biggest and most critical need in all districts is for staff development and training so everyone understand how the system works and the parameters of the new reporting systems.

Staff indicated that to the extent possible, the project has relied on web technology and off-the-shelf software products. They felt that less customization would shorten development times, make system maintenance less complicated, and reduce the risk of failure due to software problems. In addition, the staff, the KPMG consultants, and other department staff feel that the incremental development approach was helpful in working out the bugs in the system before full implementation.

Future Development

According to the DBI project summary report (Oregon Department of Education, 1999), by January 2001, the web-based database will contain three years of data on the sixteen pilot districts (1997-98 through 1999-2000) and one year of data for all districts in the state (1999-2000). A detailed program of implementation has been established to expand the DBI statewide beginning in July 1999. At that point in time, all districts will be expected to maintain their budget and accounting systems using the new chart of accounts, and to submit fiscal reports through the web-based data loading system. Moreover, non-fiscal data elements will also be collected through web-based systems to the maximum extent possible.

Project Costs

Estimated costs for the first biennium of the DBI project were $2.9 million, of which approximately $1.5 million was paid to KPMG for their work on the project. The balance funded the DBI project office within the Oregon Department of Education and paid for its staff, and the statewide workshops, focus groups and other meetings. According to project staff, the estimated costs for 1999-2000 are $6.2 million, of which approximately $2.5 million will go to KPMG for their assistance as the DBI is implemented statewide.

These cost estimates reflect Legislative appropriations for state costs and do not include the costs incurred by the pilot districts. More importantly, the estimated costs for the 1999-2000 biennium do not include the costs that will be incurred by all districts in the state as they modify their systems to meet the new reporting requirements.

Despite the lack of data on the opportunity costs facing school districts, it does not appear that these costs will constitute a major burden to most districts. There are a number of reasons for this. First, the new chart of accounts was designed to use as much of the old systems as possible. Districts that used Oregon's suggested chart of accounts previously will have less trouble with the new system than will those who developed their own accounting systems. Second, most districts realize that the chart of accounts needs to be updated periodically and will

be able to accommodate this change with relatively little problem. Finally, it is expected that the web-based data reporting system will reduce the burden of the previous program and in the long run result in substantial labor savings at the school districts.

School superintendents and representatives of school administrator groups indicated that while meeting the requirements of the DBI was not an inexpensive or easy endeavor, it seemed to them to be worthwhile because of the more sophisticated data that will be available to both themselves and to the Legislature and public. All felt that the availability of comparable data from other districts would serve them well as they strive to improve student performance. Moreover, many were eager to find ways to show how additional resources in schools could be used to make improvements in student outcomes.

LESSONS LEARNED AND GENERAL CONCLUSIONS

In meeting with officials of the Oregon Department of Education, the DBI project staff and its KPMG consulting team as well as district superintendents, state legislators, and representatives of educational support groups, it was clear that to date, implementation of the DBI project is widely considered a success. There appear to be a number of reasons for this. They are identified below in rough order of importance from the writer's point of view.

Understanding the Purpose for Collection of School Level Data

House Bill 3636, which mandated the DBI, was passed because the Legislature wanted to know two things. First, they wanted to know what a quality education for Oregon school children should cost, and second, they wanted to know how the allocation and use of resources matters in terms of improving student learning. As one member of the Legislature[5] said, "I want to be sure that we can hold the schools accountable for the large sums of money we appropriate to them each year, and I want to be sure they are using those funds to undertake activities that will ensure high student performance."

As further evidence of the way in which the DBI will be used, the Oregon Quality Education Model relies heavily on estimates generated from the pilot districts in estimating the costs of the components of a quality education. Clearly, as data from all 198 districts come on-line, it will be possible to compare indicators of how well districts and schools are meeting the performance goals for students and how they are expending the resources available to them.

This clear focus on how the data are to be used – both for developing an idea of what a quality education program should cost and to hold districts accountable for using the funds in ways that lead to improved student learning – has helped develop an acceptance of the DBI. Acceptance of the initiative by data providers is critical to the integrity of the data in the database, which will make it easier to rely on the data for future decision making.

It is this clear sense of how the data are to be used that seems to distinguish Oregon's effort from some of the others across the United States. The database is being developed parallel to the Oregon Quality Education Model and will be used to help evaluate the success of that Model as well. By relying on the school level data provided by the DBI, individuals, policy makers, and Oregon Department of Education Officials can ascertain the extent to which schools across the state meet the model established by the OQEM and show what it costs to implement that model in different location across the state.

[5] State Representative Deborah Kafoury, District 18, Portland.

Public Private Cooperation

One of the things that stands out in observing the development of the DBI to date is the strong working relationship that has developed between the Oregon Department of Education's DBI staff and the staff from KPMG. There is a great deal of mutual respect for each other and the skills and qualities each brings to the table, particularly among the team leaders. The Department's project director is also a chief business officer in an Oregon school district and is widely respected across the state. Her skill at bringing people from diverse and occasionally hostile environments together to work out the chart of accounts has been impressive. Moreover, her skill as a school business officer has helped smooth over rough spots with local officials over the implementation of the program where they have occurred.

Data Accessibility

The data collected from the pilot districts are available on the World Wide Web. The DBI home page is easy to navigate, and the reports that can be generated from the system are quite extensive, even at this early stage of development. Moreover, the reports are easy to generate and read. Making school district spending and resource allocation decision available to the general public, while somewhat frightening to many, is often a good way to earn the cooperation of school activists. There is no question that individuals who understand how school funds are used will be better able to make good decisions in the future about how to use scarce resources to maximize student benefits and learning.

Replacing an Old System

There seems to be virtually uniform agreement across the state that Oregon's existing way of collecting data from school districts is outdated and in need of substantial upgrading. This need was a large reason for development of the DBI and is no doubt an important component of the support the initiative has received to date.

Responding to Local Needs

Perhaps critical to the success of the DBI is the responsiveness of its design team to locally identified needs an problems. By seeking input early and often in the process, the data collected will be useful to both the state and to the local districts responsible for collecting it.

CONCLUSION

At this point in time, individuals and officials in Oregon are remarkably happy with the development and implementation of the DBI. It is almost certain that as the state attempts to roll out this program to all 198 districts, there will be more complaints than have been heard to date. However, the ground work that has been done, combined with the clear identification of how these new data will be used, will go a long way toward quieting those complaints.

If Washington decides it wants to establish a more extensive school level data collection system, there is much to be learned from Oregon's experience. Most important is the need for the state to be very clear about how it wants to use the data it will collect and why it wants to use it that way. Linking analyses of resource allocation and use to student outcomes and standards represents a strategy that can not be ignored.

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APPENDIX A

DESIGN OF PROTOTYPE SCHOOLS UNDER THE OREGON QUALITY EDUCATION MODEL[6]

Elementary School

- All-day kindergarten
- 20:1 pupil-teacher ratios at all grade levels
- Specialists for areas like art, music, P.E., or second language (determined at the discretion of each building.
- On-site instructional improvement/curriculum development support
- Additional time for students having trouble reaching standards
- Professional development time and resources for teachers and support staff to develop skills to enable most students to reach standards

Middle School

- 29:1 class size maximum in core academic courses
- 1.5 extra teachers to provide extra options in math, English, science
- Additional time for students who are having trouble reaching standards including summer school
- One counselor per 250 students
- Adequate professional development resources to allow teachers to develop skills to teach to standards successfully and assess student work reliably
- On-site instructional improvement/curriculum development support
- Volunteer coordinator and community outreach worker
- Adequate campus security
- Alternative programs for special needs students

High School

- 29:1 class size maximum in core academic courses
- 3 extra teachers, one each in math, English, science
- Additional time for students who are having trouble reaching standards including summer school
- Volunteer coordinator and community outreach worker
- One counselor per 250 students
- Adequate professional development resources to allow teachers to develop skills to teach to standards successfully and assess student work reliably
- On-site instructional improvement/curriculum development support
- School-to-work coordinator
- Adequate campus security
- Alternative programs for special needs students

[6] Source: Legislative Council on the Oregon Quality Education Model, (1999).

APPENDIX B

OREGON DBI PILOT DISTRICTS

District	Enrollment (1997-98)	Location
Bend-LaPine	12,111	Eastern Oregon
Central Linn	786	Eastern Oregon
David Douglas	7,546	Portland Metro
Eugene	18,832	Willamette Valley
Glendale	542	Southern Oregon
Greater Albany	7,871	Willamette Valley
Hood River	3,722	Columbia River
LaGrande	2,644	Eastern Oregon
Lake ESD	---	Eastern Oregon (south)
Lake Oswego	7,186	Portland Metro
Lakeview	1,114	Eastern Oregon (south)
Lincoln County	7,161	Oregon Coast
Mitchell	80	Eastern Oregon
Nyssa	1,229	Eastern Oregon
Portland	55,321	Portland Metro
Salem-Keizer	33,086	Willamette Valley

Source: Oregon Database Initiative Project, http://dbi.ode.state.or.us/

Note: Project staff indicated that one of the initial sixteen districts, Myrtle Point, dropped out early in the pilot phase and was replaced by Glendale.

APPENDIX C

CURRENT LISTING OF DBI INDICATORS[7]

Funding

- Revenues
  - What are the sources of revenue? Which are local, state, and intermediate dollars?
  - What funds are restricted and unrestricted?
  - What major in-kind services or resources are districts receiving?
- Expenditures
  - How do costs compare among districts and schools?
  - What are the costs of employee salaries and benefits?
  - What are average teacher salaries?
  - Are there differences in regional costs between school districts?
  - What are direct instructional costs vs. administrative costs?
  - What are the costs of small schools?

Special Programs

- What are the costs of special programs vs. weighted funding?
- What is the level of ESD support for each district?

Non-Salary Costs

- What is the level of capital vs. operating expenditures?
- What is the cost to maintain the infrastructure?
- What are expenditures on technology?
- What are the costs of transportation?

Staff Development

- What is spent on targeted staff development, i.e. district/school directed vs. personal selection of the training?

Staffing

- What is the number of FTE classroom teachers by school?
- What is the number of FTE licensed staff by school?
- What is the number of FTE licensed staff by job function by school?

[7] Source: http://dbi.ode.state.or.us/ (select "indicators" from the frame on the left side of the screen).

Teacher Qualifications

- What is the number of FTE with Masters or above by school?
- What is the average number of years of teaching experience by school?
- What is the number of mis-assignments by school and curriculum area?
- What is the average number of hours of targeted staff development per teacher per school?

Non-Instructional Staff

- What is the number of FTE of instructional assistants by school?
- What is the number of non-instructional classified staff and functions?
- What is the number of FTE of school administrators by school by job function?
- What is the number of FTE of central administrators by district?
- What is the number of hours of volunteer time?

School Processes

- Class Configurations
- What is the class size by class, grade level, or blend
- What is the percentage of classrooms above/below size range
- What are the average class sizes for English, Math, Science, Social Studies, and Second Language by secondary school?
- What is the number of hours per year of student instructional time by school by curriculum area (reading, writing, math)?
- What is the number of hours per year per State Report?
- What is the number of planning days and/or instructional days per student year?
- What is the amount of time spent on targeted staff development?
- What is the amount of time spent on remediation?
- Does the district/school use a modified calendar?
- Is there open enrollment between schools?

Demographics

- What is the number of students by school by grade level?
- What is the number of students with IEP's by district?
- What is the number of students by disability(high-low cost) per district?
- What is the number of ESL students by school?
- What is the number of teen parents by school?
- What are the school SES scores?
- What is the number of students eligible for free/reduced lunch by school?
- What is the student mobility rate by school?
- What are the student attendance rates by school?
- What is the student ethnicity by school?
- What is the number of expulsions by school?
- What is the number of students retained in grade by school?

- What is the number of students in intact cohort by school?
- What is the number of private school students by district?
- What is the number of home school students by district?
- What is the number of students failing classes by school?
- What is the number of students in work experience programs by school?

Community

- What is the household income by district?
- What is the percentage of households with children by district?
- What is the parent education level by district?

Student Performance

- What are the average test scores in CIM areas by school by benchmark year for grades 3, 5, 8, 10?
- What are the state standards for each level and subject area?
- What is the percentage of students meeting standards, exceeding standards, or not meeting standards by school?
- What is the number of students receiving a high school diploma by school?
- What is the number of students dropping out of school by school?
- What is the number of students earning a GED by school?
- What is the number of students adjudicated by school?

Infrastructure

- What is the age of building by district?
- What is the date of the last major remodel by building by district?
- What is the building square footage by building by district?
- What is the number of students per instructional computer by school?
- What is the number of Internet connections per school?
- What is the number of classrooms by school?
- Are facilities available for distance learning in a school?
- What is the grade range for each school?
- What are the bond levy election results by district?